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**PATENT**

J1036 U.S. PTO  
09/950024  
09/12/01

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

|                           |   |                            |
|---------------------------|---|----------------------------|
| In re Application of      | ) | Prior Group Art Unit: 1631 |
|                           | ) |                            |
| Hua Zhu, <i>et al.</i>    | ) | Prior Examiner: Y. Kim     |
|                           | ) |                            |
| Continuation of           | ) |                            |
| Serial No. 09/377,907     | ) |                            |
|                           | ) |                            |
| Filed: September 12, 2001 | ) | Atty. Dkt. No. 03848.00096 |

For: **Expression Monitoring For Human Cytomegalovirus (HCMV) Infection**

**INFORMATION DISCLOSURE STATEMENT**

Assistant Commissioner of Patents  
Washington, D.C. 20231

Sir:

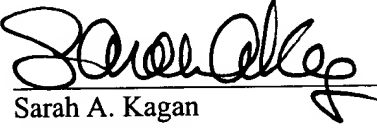
Pursuant to the duty of good faith and candor as set forth in 37 C.F.R. § 1.56(a) Applicant submits herewith a Form PTO 1449. Since these documents were previously cited in Application Serial No. 09/377,907 no copies are being supplied herewith.

Applicant respectfully requests that the Examiner consider and enter these documents into the file of the above-identified application. No fee is believed to be due to ensure consideration and entry of the cited documents by the Examiner. However, if a fee is deemed necessary, the Commissioner is authorized to charge our Deposit Account No. 19-0733.

Dated: September 12, 2001

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Respectfully submitted,

  
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|   |                                   |                                       |
|---|-----------------------------------|---------------------------------------|
| PTO-1449 (Modified)<br><br>U.S. DEPARTMENT OF COMMERCE<br>PATENT AND TRADEMARK OFFICE<br><br>INFORMATION DISCLOSURE STATEMENT<br>BY APPLICANT | ATTY. DOCKET NO.<br>03848,00096   | SERIAL NUMBER<br>TBA/Cont. 09/377,907 |
|   | APPLICANT<br>Hau Zhu et al.       |                                       |
|   | FILING DATE<br>September 12, 2001 | GROUP ART UNIT<br>1631                |

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09/12/01

## U.S. PATENT DOCUMENTS

| EXAMINER<br>INITIAL | DOCUMENT<br>NUMBER | DATE       | NAME              | CLASS | SUB<br>CLASS | FILING<br>DATE |
|---------------------|--------------------|------------|-------------------|-------|--------------|----------------|
|                     | 5,561,071          | 10/1/1996  | Hollenberg et al. |       |              |                |
|                     | 5,733,729          | 03/31/1998 | Lipshutz et al.   |       |              |                |
|                     | 5,795,716          | 08/18/98   | Chee et al.       |       |              |                |

## FOREIGN PATENT DOCUMENTS

| EXAMINER<br>INITIAL | DOCUMENT<br>NUMBER | DATE | COUNTRY | CLASS | SUB<br>CLASS | TRANSLATION<br>YES/NO |
|---------------------|--------------------|------|---------|-------|--------------|-----------------------|
|                     |                    |      |         |       |              |                       |
|                     |                    |      |         |       |              |                       |
|                     |                    |      |         |       |              |                       |

## OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)

|  |  |
|--|--|
|  | Shibutani et al. "Pertussis Toxin-sensitive G Proteins as Mediators of the Signal Transduction Pathways Activated by Cytomegalovirus Infection of Smooth Muscle Cells" The Journal of Clinical Investigation, Volume 100, Number 8, October 1997 pages 2054-2061 |
|  | Zhu et al. "Cellular gene expression altered by human cytomegalovirus: Global monitoring with oligonucleotide arrays" Proc. Natl. Acad. Sci. USA Vol. 95 pages 14470-14475, November 1998  |
|  | Geist and Dai "Cytomegalovirus Modulates Interleukin-6 Gene Expression" Transplantation, Vol. 62, No. 5, September 1996, pages 653-658   |
|  | Zhou et al. "Human Cytomegalovirus Increases Modified Low Density Lipoprotein Uptake and Scavenger Receptor mRNA Expression in Vascular Smooth Muscle Cells" The Journal of Clinical Investigation, Vol. 98, No. 9, November 1996, pages 2129-2138               |
|  | J. Zhu "Ultraviolet B irradiation and cytomegalovirus infection synergize to induce the cell surface expression of 52-kD/Ro antigen" Clin Exp. Immunol. 1996: 103:47-53  |
|  | Boldogh et al. "Novel Activation of $\gamma$ -Interferon in Nonimmune Cells during Human Cytomegalovirus Replication" Proceedings of the Society for Experimental Biology and Medicine, Vol. 215, No. 1, May 1997  |
|  | Lois J. Geist et al. "The Immediate Early Genes of Human Cytomegalovirus Upregulate Tumor Necrosis Factor- $\alpha$ Gene Expression" J. Clin. Invest. Vol. 93, February 1994, pages 474-478  |
|  | Colberg-Poley and Santomenna "Selective Induction of Chromosomal Gene Expression by Human Cytomegalovirus" Virology, 1988, Vol. 166, pages 217-228   |
|  | Zhu et al. "Use of Differential Display and DNA Array Technology to Assess the Effect of Human Cytomegalovirus Infection on Signal Transduction pathways. FASEB Journal, April 1998, Vol. 12, No. 8, page A1308  |
|  |  |

|  |                 |
|--|-----------------|
| EXAMINER   | DATE CONSIDERED |
| EXAMINER: Initial citation if reference was considered. Draw line through citation if not in conformance to MPEP 609 and not considered. Include copy of this form with next communication to applicant. |                 |

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PTO/SB/08A (08-00)

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| Substitute for form 1449A/PTO   |                        | <b>Complete if Known</b> |                                |
| <b>INFORMATION DISCLOSURE<br/>STATEMENT BY APPLICANT</b><br><br>(use as many sheets as necessary) |                        | Application Number       | TBA/Continuation of 09/377,907 |
|   |                        | Filing Date              | September 12, 2001             |
|   |                        | First Named Inventor     | Hua Zhu et al.                 |
|   |                        | Prior Group Art Unit     | 1631                           |
|   |                        | Prior Examiner Name      | Y. Kim                         |
| Sheet 1 of 1  | Attorney Docket Number | 03848.00096              |                                |

| U.S. PATENT DOCUMENTS  |                          |                      |                                      |  |  |   |
|------------------------|--------------------------|----------------------|--------------------------------------|--|--|---|
| Examiner<br>Initials * | Cite<br>No. <sup>1</sup> | U.S. Patent Document |                                      | Name of Patentee or Applicant<br>of Cited Document | Date of Publication of<br>Cited Document<br>MM-DD-YYYY | Pages, Columns, Lines, Where Relevant<br>Passages or Relevant<br>Figures Appear |
|                        |                          | Number               | Kind Code <sup>2</sup><br>(if known) |  |  |   |
|                        |                          | 5,700,637            |                                      | Southern   | 12/23/97   |   |
|                        |                          | 6,124,433            |                                      | Falb et al   | 09/26/00   |   |
|                        |                          |                      |                                      |  |  |   |
|                        |                          |                      |                                      |  |  |   |
|                        |                          |                      |                                      |  |  |   |
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| FOREIGN PATENT DOCUMENTS |                          |                         |                     |                                      |   |  |  |                |
|--------------------------|--------------------------|-------------------------|---------------------|--------------------------------------|---|--|--|----------------|
| Examiner<br>Initials*    | Cite<br>No. <sup>1</sup> | Foreign Patent Document |                     |                                      | Name of Patentee<br>or Applicant of<br>Cited Document | Date of Publication of<br>Cited Document<br>MM-DD-YYYY | Pages, Columns, Lines,<br>Where Relevant<br>Passages or Relevant<br>Figures Appear | T <sub>6</sub> |
|                          |                          | Office <sup>3</sup>     | Number <sup>4</sup> | Kind Code <sup>5</sup><br>(if known) |   |  |  |                |
|                          |                          | WIPO                    | 89/10977            |                                      |   | 11/16/89   |  |                |
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| OTHER PRIOR ART -- NON PATENT LITERATURE DOCUMENTS |                          |   |                |
|--|--------------------------|---|----------------|
| Examiner<br>Initials *                             | Cite<br>No. <sup>1</sup> | Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published. | T <sup>2</sup> |
|  |                          | Smith D, "Microbial pathogen genomes-new strategies for identifying therapeutics and vaccine targets", Trends in Biotechnology, Vol. 14, 1996, pages 290-293.   |                |
|  |                          | Shiue L, "Identification of candidate genes for drug discovery by differential display", Drug Development Research, Vol.41, Jul-Aug 1997, pages 142-159.  |                |
|  |                          | Maier E et al, "Automated array technologies for gene expression profiling", Drug Discovery Today, Vol. 2, No. 8, August 1997, pages 315-324.   |                |
|  |                          | Bertelsen AH et al, "High-throughput gene expression analysis using SAGE", Drug Discovery Today, Vol. 3, No. 4, April 1998, pages 152-159.  |                |

|                       |  |                    |  |
|-----------------------|--|--------------------|--|
| Examiner<br>Signature |  | Date<br>Considered |  |
|-----------------------|--|--------------------|--|

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<sup>1</sup> Unique citation designation number. <sup>2</sup> See attached Kinds of U.S. Patent Documents. <sup>3</sup> Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). <sup>4</sup> For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. <sup>5</sup> Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. <sup>6</sup> Applicant is to place a check mark here if English language Translation is attached.

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